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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,319	09/19/2003	Robert Edward Wilson	10030442-1	7914
57299	7590	11/20/2007		
Kathy Manke Avago Technologies Limited 4380 Ziegler Road Fort Collins, CO 80525			EXAMINER CHIAM, DINH D	
			ART UNIT 2883	PAPER NUMBER
			NOTIFICATION DATE 11/20/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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kathy.manke@avagotech.com  
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## Office Action Summary

Application No.

10/666,319

Applicant(s)

WILSON ET AL.

Examiner

Erin D. Chiem

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This office action is in response to applicant's request for continued examination filed on August 28, 2007. Currently, claims 1-5, and 7-9 are pending.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilliland et al. (US 6,416,238). In Fig. 1, Gilliland discloses an optical assembly comprising a package (10) including an optoelectronic component; an alignment feature (20) mounted to a surface of the package; and a sleeve (30) defining only one bore (32) with an inner surface having a constant inner diameter for receiving and contacting outer surfaces of the alignment feature (20) and a ferrule of a fiber optic connector when the alignment feature and the ferrule are inserted into the bore at opposite ends of the bore so they can be aligned relative to each other (see Abstract).

In terms of claim 2, an optical assembly comprising a package (10) including an optoelectronic component; an alignment feature (20) mounted to a surface of the package; and a sleeve (30) defining only one bore (32) with an inner surface having a constant inner diameter; a fiber optic connector comprising a ferrule wherein the alignment feature and the ferrule are inserted into the bore at opposite ends of the bore so they can be aligned relative to each other (see Abstract).

In terms of claim 4, the transparent element (20) is a solid post comprising a transmissive material allowing a light emitted by the package to pass through.

Regarding claim 7, Gilliland discloses the transceiver such as one disclosed in the reference would be coupled to a LC connector (col. 1, line 55-67).

In terms of claims 8 and 9, the package that pertains to Gilliland invention is a TO style laser diode package (col. 1, lines 13-31).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland in view of Yonemura et al. (US 6,540,412 B2).

Gilliland discloses the invention of claim 1, however, Gilliland does not explicitly disclose the alignment feature is a cylindrical post having a hole allowing a light emitted by the package to pass through.

Yonemura discloses a transceiver having an alignment feature (22d) that is mounted to a base (28) wherein a sleeve having an inner diameter that makes contact to the outer surfaces of the alignment feature when press-fitted.

It would have been obvious to one having ordinary skill in the art to recognize the alignment feature (20) taught by Gilliland would be modifiable with a similar size having a bore

that would allow a light emitted by the package to pass through. **The motivation** for making such modification is one of cost effectiveness versus performance quality. One having ordinary skill in the art would use a refractive index matching transparent material for light to emit through since light would be better guided through refractive index matching transparent material than through air within in the bore of a the post. However, the post having a bore may be fabricated from any desired material that would best suit the application. Therefore choosing the best suit material at a lower cost would be more cost effective.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland in view of Irie et al. (US 6,354,747 B1).

Gilliland discloses the invention of claim 1, however, Gilliland does not explicitly disclose the alignment feature is a solid partial sphere comprising a transmissive material allowing a light emitted by the package to pass through.

Irie discloses a transceiver having an alignment feature (24a) that has a solid partial spherical lens wherein a sleeve having an inner diameter that makes contact to the outer surfaces of the alignment feature when press-fitted (Fig. 4A).

It would have been obvious to one having ordinary skill in the art to recognize the alignment feature (20) taught by Gilliland would be modifiable with a solid partial spherical lens that would allow a light emitted by the package to pass through. **The motivation** for using such a lens is to better collimate light from the package to the ferrule.

*Response to Arguments*

Applicant's arguments filed 08/28/2007 have been fully considered but they are not persuasive. Applicants argue that Gilliland does not teach an alignment feature mounted to a surface of the package and a sleeve receiving the alignment feature and a ferrule of fiber optic. The examiner has found this argument to be non persuasive for the following reason(s):

The alignment feature (20) is formed from molded material into the bore and sleeve structure (30, 32) in order to allow light to be properly aligned as it passes through optical device.

The sleeve feature is clearly present in structure (30) wherein the structure (20) is received from (32) into the sleeve (30) (Col 4 [50-67]).

The features of (30,20,32) of Figure 2 are small components of the ferrule base system in Figure 23 in which (1327 and 1325).

In regards to applicant argument regarding Claim 3 has been considered and was found to be non persuasive because the examiner has cited a motivation to combine Gilliland with Yonemura because it would reduce the cost vs performance through refractive index matching as cited in the rejection above. The motivation for claim 5 is also cited in the above rejection.

Therefore the grounds of rejection as established above are maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

Application/Control Number:  
10/666,319  
Art Unit: 2883

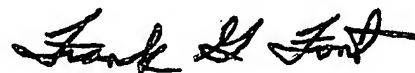
Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Erin D Chiem  
Examiner  
Art Unit 2883



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